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10/517,260	12/07/2004	Tadamasa Toma	2004_1953A	1196
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PHAN, TRI H				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/517,260

Applicant(s)

TOMA ET AL.

Examiner

TRI H. PHAN

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 17 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-6, 8-13 and 15-16 is/are rejected.
- 7) ☐ Claim(s) 7 and 14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/S5108)
Paper No(s)/Mail Date 01/16/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment/Arguments

1. This Office Action is in response to the Response/Amendment filed on January 16th, 2008. Claims 1-17 are now pending in the application. Claims 1-16 were elected to be prosecuted on the merits. Thus, non-elected claim 17 is withdrawn from consideration. In a response to this Office Action Applicant should cancel the non-elected claims to expedite the prosecution, should the response place the instant application in a favorable condition for allowance.

Drawings

2. Figures 1-11B should be designated by a legend such as -- Prior Art -- because only that which is old is illustrated (See Part 2 -- Description of the Related Art, pages 1-16). See MPEP § 608.02(g).

Claim Objections

3. Claims 1-9 and 16 are objected to under 37 C.F.R. 1.75 because of the following formalities:

In claims 1-9 and 16, the term "operable to" makes claim limitation(s) following the term optional and does not required the steps to be performed.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Note: The term “operable to” makes claim limitation following the term optional and may not require the steps to be performed. Appropriate correction is required.

5. Claims 1-2, 10-11 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant’s admitted prior art (see Part 2, Description of the Related Art, pages 1-16; hereinafter refer as ‘**AAPA**’) in view of **Yasuda, Hiroshi** (“International Standard for Multimedia Encoding”, Maruzen Co., Ltd. pp. 221-232, June 30, 1991; hereinafter refer as ‘**Yasuda**’).

- In regard to claims 1, 10 and 16, **AAPA** discloses (see Fig. 8 and in the respective portions of the specification) *a method, computer program* (wherein a program is obvious for performing all functionalities for such method and device) *and multiplexer* (‘conventional multiplexer’ or element 960 in fig. 8), *method an that is operable to generate multiplexed data by multiplexing packets of media data including image data and at least one of audio data and text data* (for example see Part 2, Description of the Related Art, page 1, line 30 through page 2, line 4; page 10, lines 22-25), *which comprises*

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a media data obtainment unit operable to obtain the media data (elements 961-962, 964-965 in fig. 8; for example see Part 2, Description of the Related Art, page 10, lines 26-30; wherein elements 961-962 are for video input data, and elements 964-965 are for audio input data, e.g. “media data”);

a packet header part generation unit (element 969 in fig. 8) operable to generate a packet header part that holds a header of the media data on a basis of the packetization part (for example see Part 2, Description of the Related Art, page 12, line 31 through page 13, line 5);

a packet data part generation unit (element 970 in fig. 8) operable to generate a packet data part that holds entity data of the media data on a basis of the packetization part (for example see Part 2, Description of the Related Art, page 13, lines 3-14); and

a packetization unit (element 971 in fig. 8) operable to generate a packet by connecting the packet header part with the packet data part (for example see Part 2, Description of the Related Art, page 13, lines 15-17).

AAPA also discloses the first and second analysis units 963, 966, (“*analysis unit*”) for analyzing the media data and obtaining information for sample in MP4, e.g. the smallest access unit of the image data, audio data and text data (for example see Part 2, Description of the Related Art, page 10, line 31 through page 11, line 12); and the packetization part determination unit 967 (“*packetization part determination unit*”) for determining packetization part for media data (for example see Part 2, Description of the Related Art, page 10, line 31 through page 11, line 17) and header information for samples, e.g. type, size and playback time duration information (“*playback start times*”; see fig. 10; Part 2, Description of the Related Art, page 12, lines 11-24), for storing in

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packet generation table store unit 968 (for example see Part 2, Description of the Related Art, page 12, line 25 through page 13, line 24); **AAPA** discloses all the claimed subject matter; but fails to consider about playback times for audio and video are made to be “*the same*” or synchronizing for samples, when multiplexing media data in the conventional multiplexer (for example see figs 11A-B; Part 2, Description of the Related Art, page 13, line 25 through page 16, line 14).

Yasuda teaches, from the same or similar fields of endeavor, e.g. for AV synchronization, method for multiplexing AV segments and synchronizing time duration between audio and video segments to corresponding “*same time*”, through methods as disclosed in Sections 11.3.1, 11.3.3 of AV synchronization algorithm section, pages 5-9.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to apply the known method as taught by **Yasuda**, e.g. AV synchronization, into the **AAPA**’s system, with the motivation being to reproduce media data while maintaining synchronization for AV segments as disclosed in **Yasuda**: page 5, line 28 through page 6, line 3.

- Regarding claims 2 and 11, **AAPA** further discloses, wherein the information for video track, audio track and text track are stored in the movie header box 917 (“*leading part of the packetization part*”; for example see fig. 3A; Part 2, Description of the Related Art, page 4, lines 13-27); but fails to consider about playback times for audio, text and video are made to be “*the same*” or synchronizing for samples, when multiplexing media data in the conventional multiplexer (for example see figs 11A-B; Part 2, Description of the Related Art, page 13, line 25 through page 16, line 14).

Yasuda teaches, from the same or similar fields of endeavor, e.g. for AV synchronization for complex data which comprises audio, video and other data such as text data (for example see **Yasuda**: Section 11.1 Major applications and requirements, pages 1-3), method for multiplexing AV segments and synchronizing time duration between audio and video segments to corresponding “*same time*”, through methods as disclosed in Sections 11.3.1, 11.3.3 of AV synchronization algorithm section, pages 5-9.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to apply the known method as taught by **Yasuda**, e.g. AV synchronization, into the **AAPA**’s system, with the motivation being to reproduce media data while maintaining the time corresponding relation between AV segments as disclosed in **Yasuda**: page 5, lines 28-30.

6. Claims 3-6, 8-9, 12-13 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Applicant’s admitted prior art (see Part 2, Description of the Related Art, pages 1-16) in view of **Yasuda, Hiroshi** (“International Standard for Multimedia Encoding”, Maruzen Co., Ltd. pp. 221-232, June 30, 1991), as applied to claims 1, 10 and 16 in part 5 above, and further in view of **Moriyama et al.** (U.S.5,537,409; hereinafter refer as ‘**Moriyama**’).

- In regard to claims 3 and 4, the combination of **Yasuda** and **AAPA** does discloses method for synchronizing complex data which comprises audio, video and other data such as text data (for example see **Yasuda**: Section 11.1 Major applications and requirements, pages 1-3); but fails to explicitly disclose the playback duration of audio

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and text samples *is after* (see claim 3) or *is before* (see claim 4) the playback duration of video sample. However, such implementation is known in the art.

Moriyama teaches, from the same or similar fields of endeavor, e.g. system and method for synchronizing video, data and audio signals (for example see **Moriyama**: figs. 5a-d); wherein time-sequential relation between actual video and audio information is leads ("*is before*") or lags ("*is after*") depending on the number of audio access unit 'AAU' in the pack (for example see figs. 8a-e; col. 8, lines 14-53); and presentation start times for video and audio signals in reproducing ("*the earliest to playback start time of image data sample*"; for example see fig. 9; col. 8, line 54 through col. 9, line 5).

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the known method as taught by **Moriyama**, into the combination of **Yasuda** and **AAPA**'s system, with the motivation being to reproduce media data while controlling difference between presentation start times corresponding to positional information for AV segments as disclosed in **Moriyama**: col. 2, lines 9-18.

- Regarding claims 5 and 12, the combination of **Yasuda** and **AAPA** further fails to explicitly disclose method for obtaining "*intra frame information*" indicating that the sample is an "*intra coded sample*" in determining media data. However, such implementation is known in the art.

Moriyama further discloses the coded frame image with types of pictures ("*intra frame information*") for I picture or Intra coded picture ("*intra coded sample*"), P picture, and B picture (see figs. 1, 2a-c) with different coding scheme in MPEG in determining

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video data, e.g. *“determine the media data ... obtains the intra frame information”*, as disclosed in figs. 1-2; col. 2, line 62 through col. 3, line 39.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the known method as taught by **Moriyama**, into the combination of **Yasuda** and **AAPA**'s system, with the motivation being to reproduce media data while reducing the delay time for decoding process as disclosed in **Moriyama**: col. 3, lines 27-30.

- In regard to claims 6 and 13, the combination of **Yasuda** and **AAPA** further fails to explicitly disclose method for placing a sample of the video data including the intra frame information in a leading part of the packetization part. However, such implementation is known in the art.

Moriyama further discloses method for placing coded frame image with types of pictures, e.g. *“sample of the video data including the intra frame information”* in each unit of group of pictures ‘GOP’, e.g. *“leading part of the packetization part”*, as disclosed in figs. 1-3; col. 2, line 62 through col. 3, line 39.

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the known method as taught by **Moriyama**, into the combination of **Yasuda** and **AAPA**'s system, with the motivation being to reproduce media data while reducing the delay time for decoding process as disclosed in **Moriyama**: col. 3, lines 27-30.

- Regarding claims 8-9 and 15, the combination of **Yasuda** and **AAPA** further fails to explicitly disclose method for interleaving samples of media data such that the playback start times of the samples are *in an ascending order or when the previously set condition is satisfied*. However, such implementation is known in the art.

Moriyama further discloses method for rearrangement frames (“*interleaving samples of media data*”) in opposite order to one shown in fig. 2, e.g. “*in an ascending order*”, when the presentation starting times for I and P pictures are lagged as disclosed in col. 4, lines 23-27; or *when the previously set condition is satisfied* (for example see fig. 3; col. 2, lines 1-8; col. 4, lines 30-38)

Thus it would have been obvious to the person of ordinary skill in the art at the time of the invention was made to implement the known method as taught by **Moriyama**, into the combination of **Yasuda** and **AAPA**’s system, with the motivation being to reproduce media data while controlling the difference between presentation start times corresponding to positional information as disclosed in **Moriyama**: col. 2, lines 1-18.

Allowable Subject Matter

7. Claims 7 and 14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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Sawada, Hideki (U.S.6,512,884), **Murakami et al.** (U.S.7,054,546) and **Kashiwagi et al.** (U.S.5,923,869) are all cited to show devices and methods for improving the synchronization of media data such as video, audio or text, in reproduction media data, which are considered pertinent to the claimed invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tri H. Phan, whose telephone number is (571) 272-3074. The examiner can normally be reached on M-F (8:00-4:30).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chi H. Pham can be reached on (571) 272-3179.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

(571) 273-8300

Hand-delivered responses should be brought to Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office, whose telephone number is (571) 272-2600.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for

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published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Chi H Pham/

Supervisory Patent Examiner, Art Unit

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5/1/08

/Tri H. Phan/

May 5, 2008